FILE 'REGISTRY' ENTERED AT 11:03:45 ON 24 OCT 2001
E HYALURONIC ACID/CN 5
L1 1 S E3
E CHONDROITIN SULFATE/CN
L2 1 S E3
E CELLULOSE ESTER/CN
E POLYSACCHARIDE/CN
E POLYSACCHARIDES/CN
L3 2 S L1 OR L2
E METHYL CELLULOSE/CN 5
E CELLULOSE, METHYL/CN

L6 1 S 9004-67-5/RN

L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
RN **9004-67-5** REGISTRY
CN Cellulose, methyl ether (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Adulsin
CN Avicel SG
CN Bagolax
CN Benecel M 0
CN Benecel M 02
CN Benecel MC 4000PS
CN Benecel MO 42
CN Bufapto Methalose
CN Bulkaloid
CN Celacol M
CN Celacol M 20
CN Celacol M 20P
CN Celacol M 2500
CN Celacol M 450
CN Celacol MM
CN Celacol MM 10P
CN Celacol MMPR
CN Celacol WA
CN Cellapret
CN Cellogran
CN Cellothyl
CN Cellulose methylate
CN Cellumeth
CN Cesca C 8556
CN Cesca MC 25S
CN Cesca MC 400
CN Cethylose
CN Cethytin
CN Culminal K 42
CN Culminal MC
CN Culminal MC 2000
CN Culminal MC 25S
CN Culminal MC 3000P
CN Culminal MC 3000PR
CN Culminal MC 40
CN Culminal MC 6OS
CN Daicel 170
CN Edisol M
CN EMP-H
CN Hi-SM 4000

CN Hydrolose
CN M 100
CN M 100 (cellulose derivative)
CN M 15
CN M 15 (cellulose derivative)
CN Marpolose 60SH50
CN Marpolose 90MP10000
CN Marpolose 90MP30000
CN Marpolose Ace
CN Marpolose EM 2000
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 53568-34-6, 71812-19-6, 88402-84-0, 39384-65-1, 99638-59-2
MF C H4 O . x Unspecified
CI COM
PCT Manual registration, Polyother, Polyother only
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXLIT, USAN, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 67-56-1
CMF C H4 O

$H_3C-OH$

9178 REFERENCES IN FILE CA (1967 TO DATE)
175 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
9193 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 135:262306

REFERENCE 2: 135:262286

REFERENCE 3: 135:262272

REFERENCE 4: 135:262268

REFERENCE 5: 135:262234

REFERENCE 6: 135:262225

REFERENCE 7: 135:262223

REFERENCE 8: 135:262004

REFERENCE 9: 135:261108

REFERENCE 10: 135:261096

FILE 'CAPLUS' ENTERED AT 11:10:07 ON 24 OCT 2001

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L1             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "HYALURONIC ACID"/CN
L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "CHONDROITIN SULFATE"/C
                 N
L3             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L1 OR L2
L4         86652 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3 OR HYALURONIC OR
                 CHONDROITIN(W)(SULFATE OR SULPHATE) OR CELLULOSE ESTER
                 OR POLYSACCHARIDE OR POLYSACHARIDE OR POLY(W)SACCHARIDE
                 OR SACHARIDE
L5         21700 SEA FILE=CAPLUS ABB=ON  PLU=ON  L4 AND CELL
L6             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9004-67-5/RN
L7            54 SEA FILE=CAPLUS ABB=ON  PLU=ON  L5 AND (L6 OR (METHYL OR
                 ME)(W)CELLULOSE)
L8            12 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND (MEAS? OR QUANT?
                 OR CALCUL? OR DETERM? OR DETECT? OR DET## OR SCREEN?)


L1             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "HYALURONIC ACID"/CN
L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "CHONDROITIN SULFATE"/C
                 N
L3             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L1 OR L2
L4         86652 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3 OR HYALURONIC OR
                 CHONDROITIN(W)(SULFATE OR SULPHATE) OR CELLULOSE ESTER
                 OR POLYSACCHARIDE OR POLYSACHARIDE OR POLY(W)SACCHARIDE
                 OR SACHARIDE
L5         21700 SEA FILE=CAPLUS ABB=ON  PLU=ON  L4 AND CELL
L6             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9004-67-5/RN
L7            54 SEA FILE=CAPLUS ABB=ON  PLU=ON  L5 AND (L6 OR (METHYL OR
                 ME)(W)CELLULOSE)
L9             3 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND (MOBIL? OR MOTIL?
                 OR MOVEMENT OR MOTION)


L1             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "HYALURONIC ACID"/CN
L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "CHONDROITIN SULFATE"/C
                 N
L3             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L1 OR L2
L4         86652 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3 OR HYALURONIC OR
                 CHONDROITIN(W)(SULFATE OR SULPHATE) OR CELLULOSE ESTER
                 OR POLYSACCHARIDE OR POLYSACHARIDE OR POLY(W)SACCHARIDE
                 OR SACHARIDE
L5         21700 SEA FILE=CAPLUS ABB=ON  PLU=ON  L4 AND CELL
L6             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9004-67-5/RN
L7            54 SEA FILE=CAPLUS ABB=ON  PLU=ON  L5 AND (L6 OR (METHYL OR
                 ME)(W)CELLULOSE)
L10            0 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND (3D OR 2D OR
                 (THREE OR 3 OR TWO OR 2)(W)DIMENS?)
```

L11 14 L8 OR L9

Searcher : Shears 308-4994

L11 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:137348 CAPLUS
DOCUMENT NUMBER: 134:159901
TITLE: **Motile** sperm separation by cellulose derivatives
INVENTOR(S): Barratt, Christopher Lowther Robert; Mortimer, David
PATENT ASSIGNEE(S): Genosis Limited, UK
SOURCE: PCT Int. Appl., 11 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2001012783 | A2 | 20010222 | WO 2000-GB3130 | 20000815 |
| WO 2001012783 | A3 | 20010830 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 1999-19370 A 19990816

AB Methods and products for sepg. **motile** sperm **cells** in vitro from a sperm-contg. sample by means of contacting said sample with a layer of an aq. artificial penetration medium for sperm **cells**, said medium having incorporated therein a cellulose deriv., whereby **motile** sperm are caused to migrate into said layer from said sperm contg. sample. The process of sepg. **motile** sperm is improved if the penetration medium contains a cellulose deriv., such as a methylcellulose or a hydroxymethylcellulose. The improved medium is inexpensive compared with **hyaluronic** acid, yet dependable and effective.

IT **9004-67-5**, Methylcellulose
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**motile** sperm sepn. by cellulose derivs.)

IT **9004-61-9**, **Hyaluronic** acid
RL: MSC (Miscellaneous)
(replacement of; **motile** sperm sepn. by cellulose derivs.)

L11 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:842303 CAPLUS
DOCUMENT NUMBER: 134:1347
TITLE: An apparatus for analysis of the electrophysiology of neuronal **cells** and its use in high throughput functional genomics
INVENTOR(S): Hickman, James J.

PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2000071742 | A2 | 20001130 | WO 2000-US13966 | 20000522 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-135275 P 19990521

AB This invention focuses on the marriage of solid-state electronics and neuronal function to create a new high-throughput electrophysiol. assay to **det.** a compd.'s acute and chronic effect on cellular function. Electronics, surface chem., biotechnol., and fundamental neuroscience are integrated to provide an assay where the reporter element is an array of elec. active **cells**. This innovative technol. can be applied to neurotoxicity, and to **screening** compds. from combinatorial chem., gene function anal., and basic neuroscience applications. The system of the invention analyzes how the action potential is interrupted by drugs or toxins. Differences in the action potentials are due to individual toxins acting on different biochem. pathways, which in turn affects different ion channels, thereby changing the peak shape of the action potential differently for each toxin. Algorithms to analyze the action potential peak shape differences are used to indicate the pathway(s) affected by the presence of a new drug or compd.; from that, aspects of its function in that **cell** are deduced. This observation can be exploited to **det.** the functional category of biochem. action of an unknown compd. An important aspect of the invention is surface chem. that permits establishment of a high impedance seal between **cell** and a metal microelectrode. This seal recreates the interface that enables functional patch-clamp electrophysiol. with glass micropipettes, and allows extracellular electrophysiol. on a microelectrode array. Thus, the invention teaches the feasibility of using living **cells** as diagnostics for high throughput real-time assays of **cell** function.

IT **9004-67-5**, Methylcellulose
RL: DEV (Device component use); USES (Uses)
(in **cell** immobilization on elec. devices; app. for anal. of electrophysiol. of neuronal **cells** and its use in high throughput functional genomics)

L11 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:176020 CAPLUS
DOCUMENT NUMBER: 132:203124
TITLE: Method for the rapid **screening** of drug

candidates or other analytes
INVENTOR(S): Pauwels, Rudi Wilfried Jan; Roelant, Christiaan Hubert Simon; Van Acker, Koenraad Lodewijk August
PATENT ASSIGNEE(S): Tibotec N.V., Belg.
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2000014540 | A1 | 20000316 | WO 1998-IB1399 | 19980908 |
| W: AU, BR, CA, CN, IL, JP, KR, MX, NZ, PL, RU, SG, TR, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| AU 2000022512 | A5 | 20000327 | AU 2000-22512 | 19980908 |
| BR 9816009 | A | 20010605 | BR 1998-16009 | 19980908 |
| EP 1112494 | A1 | 20010704 | EP 1998-940489 | 19980908 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI | | | | |

PRIORITY APPLN. INFO.: WO 1998-IB1399 W 19980908

AB A method for the rapid **screening** of analytes, e.g. potential drug candidates, comprises the steps of applying a plurality of analytes to be **screened** onto one or more solid support(s) such that the analytes remain isolated from one another; contacting the analyte-carrying solid support(s) with targets provided in a semi-solid or liq. medium, whereby the analytes are released from the solid support(s) to the targets; and **measuring** analyte-target interactions. This method allows for the manipulation of thousands of different analytes simultaneously. When the analyte is applied to the solid support, it can diffuse thereon so as to produce a concn. gradient and serial diln. of analyte if a dose response curve for a candidate drug is required. The method described can be readily automated.

IT **9004-67-5**, Methylcellulose
RL: DEV (Device component use); USES (Uses)
(rapid **screening** method for drug candidates or other analytes)

REFERENCE COUNT: 7
REFERENCE(S):
(1) Andres, B; WO 9821571 A 1998 CAPLUS
(2) Burstein Lab Inc; WO 9801533 A 1998 CAPLUS
(3) Du Pont; GB 2008767 A 1979 CAPLUS
(4) Ekins, R; ANNALES DE BIOLOGIE CLINIQUE 1992, V50(5), P337 CAPLUS
(5) Leaback, D; US 4276048 A 1981 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:133793 CAPLUS
DOCUMENT NUMBER: 132:163132
TITLE: Test kit for separation and **detection** of spermatozoa for testing male fertility
INVENTOR(S): Bateman, Paul North
PATENT ASSIGNEE(S): Genosis Limited, UK
SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2000009648 | A1 | 20000224 | WO 1999-GB2685 | 19990813 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 9954319 | A1 | 20000306 | AU 1999-54319 | 19990813 |
| BR 9913039 | A | 20010508 | BR 1999-13039 | 19990813 |
| EP 1104454 | A1 | 20010606 | EP 1999-940322 | 19990813 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |

PRIORITY APPLN. INFO.: GB 1998-17795 A 19980814
WO 1999-GB2685 W 19990813

AB A kit for testing male fertility comprises a vessel, a base unit, a liq. supply contg. liq., and two filters. The first filter is a sample sepn. filter which forms a hindrance to transmission of spermatozoa. The second filter of the kit is a spermatozoa **detection** filter comprising a reagent for identifying spermatozoa. Activation of the kit is prevented until a transport medium, such as the liq., fills a gap allowing spermatozoa to transmit to a **detection** zone. The kit may be of one-piece construction and utilizes a thin piece of filter material to sep. **motile** from non-**motile** spermatozoa.

IT **9004-61-9, Hyaluronic** acid **9004-67-5,** Methylcellulose
RL: ARU (Analytical role, unclassified); BPR (Biological process); DEV (Device component use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(gel filters of, sperm **motility** in; test kit for sepn. and **detection** of spermatozoa for testing male fertility)

REFERENCE COUNT: 7
REFERENCE(S):
(1) Claude, R; FR 2614899 A 1988
(2) David, F; US 5866354 A 1999 CAPLUS
(3) Igarashi, M; JP 04200473 A 1992
(4) Juan, A; US 5935800 A 1999 CAPLUS
(5) Panayiotis, Z; EP 0446509 A 1991
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:557804 CAPLUS
DOCUMENT NUMBER: 132:26724
TITLE: An in vitro mucosal model predictive of bioadhesive agents in the oral cavity
AUTHOR(S): Patel, D.; Smith, A. W.; Grist, N.; Barnett, P.; Smart, J. D.

CORPORATE SOURCE: School of Pharmacy and Biomedical Sciences, Institute of Biomedical and Biomolecular Sciences, Biomaterials and Drug Delivery Group, University of Portsmouth, Portsmouth, UK
SOURCE: J. Controlled Release (1999), 61(1-2), 175-183
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The formulation of a drug/carrier complex that can be distributed and retained for extended periods within the oral cavity would be advantageous in the treatment of local conditions. In this study, an in vitro system was developed to investigate the binding of bioadhesive macromols. to buccal epithelial **cells**, without having to alter their physicochem. properties by the addn. of 'marker' entities. In this innovative approach, a lectin-binding inhibition technique, involving an avidin-biotin complex and a colorimetric **detection** system, was used to evaluate polymer binding. 0.5% polymer solns. in saline (pH 7.6) were left in contact with a standardized no. of freshly collected human buccal **cells** for 15 min. The **cells** were then exposed to 10 mg L-1 biotinylated lectin from Canavalia ensiformis followed by 5 mg L-1 streptavidin peroxidase. The inhibition of lectin binding (i.e., by 'masking' of the binding site on the **cell** surface by the attached bioadhesive polymer) was **measured** and expressed as a percentage redn. in the rate of o-phenylenediamine oxidn. over 1 min. From the wide range of polymer solns. **screened**, chitosan gave the greatest inhibition of lectin binding to the surface of buccal **cells** , while **Me cellulose**, gelatin, Carbopol 934P and polycarbophil also produced a substantial redn. Lectin binding inhibition was also obsd. for a selected no. of polymer solns. when **screened** at pH 6.2. The presence of bound chitosan, polycarbophil and Carbopol 934P on the buccal **cell** surface was confirmed using direct staining techniques. It was concluded that this assay can be used to **detect** polymer binding to the **cells** present on the buccal mucosa, and the information gained used in the development of retentive drug/polymer formulations.

IT **9004-61-9, Hyaluronic** acid **9004-67-5, Methyl cellulose**
RL: BPR (Biological process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(in vitro mucosal model prediction of binding of bioadhesive agents to buccal epithelium)

REFERENCE COUNT: 20
REFERENCE(S):
(1) Collins, A; J Pharm Sci 1990, V79(2), P116 CAPLUS
(3) Gibbons, R; Archs Oral Biol 1983, V28, P561 CAPLUS
(4) Harris, D; J Pharm Sci 1992, V81, P1 CAPLUS
(5) Henriksen, I; Int J Pharm 1996, V145, P231 CAPLUS
(7) Jimenez-Castellanos, M; Drug Dev Ind Pharm 1993, V19, P143 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 14 CAPLUS 

ACCESSION NUMBER: 1997:20193 CAPLUS
DOCUMENT NUMBER: 126:122392
TITLE: In-vivo testing of coated hydroxypropyl **methyl cellulose** granules containing an antineoplastic glycan (PS4) using Caco-2 tumor **cells**
AUTHOR(S): Ciftci, Kadriye; Klegerman, Melvin E.; Tian, Xin-Xin; Groves, Michael J.
CORPORATE SOURCE: Institute for Tuberculosis Research, College of Pharmacy (M/C 964), University of Illinois at Chicago, Chicago, IL, 60607-7019, USA
SOURCE: Pharm. Sci. (1996), 2(8), 357-360
CODEN: PHSCFB; ISSN: 1356-6881
PUBLISHER: Royal Pharmaceutical Society of Great Britain
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Complex **polysaccharides** (glycans) with antineoplastic activity have previously been isolated from Mycobacterium tuberculosis and attenuated M. bovis (Bacillus Calmette Guerin, BCG vaccine). This present communication reports the formulation and activity of a new antineoplastic glycan isolated from M. vaccae, a rapidly growing non-virulent organism which may offer an alternative source of these potentially useful immunopotentiators. The formulation consisted of a Eudragit S-100-coated hydroxypropyl **Me cellulose** (HPMC) granule that is believed from a parallel investigation to target the colorectal region of the gastrointestinal tract of the rat. No in-vitro activity of PS4 could be **detected** against the human colon adenoma Caco-2 **cell** line growing on collagen in tissue culture. However, when Caco-2 **cells** were implanted into the flanks of athymic nude mice, growth was initially slow but tumors could be palpated and **measured** in most animals 28 days after implantation. A preliminary expt. comparing 5-fluorouracil and PS4 suggested that both materials were effective antineoplastics but scatter around the means rendered the data statistically insignificant. Refinement of the expt. by selecting only those animals in which tumors could be palpated at 28 days improved the reproducibility. Doses of 1 or 10 .mu.g/mouse PS4 were administered by direct injection of a soln. into the mouse flank or by oral intubation of a suspension of the coated HPMC granules at 28 days and again at 42 days post-implantation. **Measurement** of the tumor sizes for a further 42 days demonstrated that there was significant inhibition of the tumor growth rate relative to that of the control group (n=7) at a dose of 10 .mu.g/mouse, and a significant decrease in tumor size at 1 .mu.g/mouse. There was no significant difference due to the route of administration.

L11 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:705679 CAPLUS
DOCUMENT NUMBER: 125:339039
TITLE: Microcapsules of pre-**determined** peptide(s) specificity(ies), their preparation and uses
INVENTOR(S): Speaker, Tully J.; Sultzbaugh, Kenneth J.
PATENT ASSIGNEE(S): Temple University of the Commonwealth System of Hi, USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9629059 | A1 | 19960926 | WO 1996-US3666 | 19960318 |
| W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI | | | | |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 5686113 | A | 19971111 | US 1995-408052 | 19950321 |
| CA 2212744 | AA | 19960926 | CA 1996-2212744 | 19960318 |
| AU 9653148 | A1 | 19961008 | AU 1996-53148 | 19960318 |
| EP 817617 | A1 | 19980114 | EP 1996-909753 | 19960318 |
| R: DE, FR, GB, IT | | | | |
| JP 11502817 | T2 | 19990309 | JP 1996-528543 | 19960318 |

PRIORITY APPLN. INFO.: US 1995-408052 19950321
WO 1996-US3666 19960318

AB An aq. core microcapsule has a capsular wall provided with a peptide(s) of pre-**detd.** binding specificity(ies) appended to the surface, the wall being the reaction product of an anionic polymer or salt thereof and a polyamine, salt thereof, mixts. thereof, or mixts. thereof with monoamines. The aq. core may contain an active ingredient(s), and be targeted for delivery to specific **cell** tissues. The microcapsules are provided as a compn. and in a kit with instructions for use in imaging, diagnosis, therapy, vaccination, and other applications. Spermine/alginate microcapsules were prepd. by addn. of nominally 8 .times. 10-7 .mu.L droplets of a 0.05% (wt./vol.) aq. Na alginate soln. to a 0.05% (wt./vol.) aq. spermine-HCl soln. at room temp. The resulting suspension of microcapsules was stirred to allow equilibration and then allowed to settle, the supernatant was removed, and microcapsules washed and stored at refrigerator temp.

IT **9004-61-9, Hyaluronic** acid **9007-28-7, Chondroitin sulfate**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric microcapsules of predetd. peptide specificity for drug targeting in diagnosis and therapy)

L11 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1993:610722 CAPLUS
DOCUMENT NUMBER: 119:210722
TITLE: Peptides for pharmaceuticals
INVENTOR(S): Myoshi, Teruzo; Mimura, Shuji; Mitsuno, Tooru
PATENT ASSIGNEE(S): Denki Kagaku Kogyo Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|

JP 05097694 A2 19930420 JP 1992-85092 19920309
PRIORITY APPLN. INFO.: JP 1991-67674 19910308
AB Therapeutic peptides with hyaluronates and polymers are stable and released from the formulation in a controlled manner. For example, an oral formulation was prepd. contg. Na hyaluronate and human interferon for treatment of cancer and viral infections.
IT **9004-67-5, Methyl cellulose**
RL: BIOL (Biological study)
(pharmaceuticals contg. therapeutic peptides and hyaluronate and)
IT **9004-61-9, Hyaluronic** acid **9007-28-7,** Chondroitinsulfuric acid
RL: BIOL (Biological study)
(pharmaceuticals contg. therapeutic peptides and polymers and)

L11 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:196802 CAPLUS
DOCUMENT NUMBER: 112:196802
TITLE: Potassium sorbate permeability of methylcellulose and hydroxypropyl methylcellulose multi-layer films
AUTHOR(S): Vojdani, Fakhrieh; Torres, J. Antonio
CORPORATE SOURCE: Dep. Food Sci. Technol., Oregon State Univ., Corvallis, OR, 97331, USA
SOURCE: J. Food Process. Preserv. (1989), 13(6), 417-30
CODEN: JFPPDL; ISSN: 0145-8892
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A permeability **cell** was used to evaluate the K sorbate barrier properties of **polysaccharide**-based films. The effect of film formation technique and film formulation on the permeability rate of methyl- and hydroxypropyl **Me cellulose**-based films was examd. Permeability const. **detns.** ranging from 10-9 to 10-11 (mg/s cm2)(cm)/(mg/cm3) indicate that surface resistance to microbial growth could be enhanced significantly. SEM examns. showed that films were of uniform thickness. Morphol. differences between films were consistent with permeability **measurements.**
IT **9004-67-5, Methyl cellulose**
RL: BIOL (Biological study)
(films contg. fatty acids, permeability of, to potassium sorbate, food storage in relation to)

L11 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:628614 CAPLUS
DOCUMENT NUMBER: 111:228614
TITLE: Temperature-sensitive polymer gels for delivering, removing, or reacting substances
INVENTOR(S): Hoffman, Allan S.; Monji, Nobuo
PATENT ASSIGNEE(S): Genetic Systems Corp., USA
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| WO 8706152 | A1 | 19871022 | WO 1987-US886 | 19870415 |
| W: AU, DK, JP, KR | | | | |
| RW: CH, DE, FR, GB, IT, NL, SE | | | | |
| US 4912032 | A | 19900327 | US 1986-948377 | 19861231 |
| AU 8773519 | A1 | 19871109 | AU 1987-73519 | 19870415 |
| EP 267239 | A1 | 19880518 | EP 1987-903136 | 19870415 |
| R: CH, DE, FR, GB, IT, LI, NL, SE | | | | |

| | | |
|---|---|---|
| PRIORITY APPLN. INFO.: | US 1986-853697 | 19860417 |
| | US 1986-948377 | 19861231 |
| | US 1985-729510 | 19850502 |
| | US 1986-854831 | 19860428 |
| | WO 1987-US886 | 19870415 |

AB Substances may be delivered into, removed from, or reacted with a selected environment using polymer gels or coatings characterized by a crit. soln. temp. (CST). The CST as well as the pore structure, size, and distribution, and the absorbing capacity of the gel may be selectively controlled. Binding components may be phys. or chem. immobilized within the polymer gels and the gels may be used to sep. desired substances from a soln. or to deliver a substance (e.g. hormone, vitamin, drug, dye, etc.). A (bio)chem. active component may be immobilized within the gel for selectively controlling a reaction within a particular environment. Also, a method for altering the surface wettability of CST polymers is disclosed. Polymer gels were made with 20% N-iso-Pr acrylamide (monomer) and methylene bisacrylamide (crosslinker) in H2O or DMSO. Swollen circles of gel films were heated to 50.degree. in buffer for 3 min, causing deswelling or desolvating of the gels. The deswelled films were incubated overnight at 4.degree. in solns. contg. myoglobin (17,800 mol. wt.) and vitamin B12 (1,350 mol. wt.). The films were removed, rinsed in room temp. buffer, deswelled at 50.degree. for 4 min, and concns. of myoglobin and vitamin B12 released were **detd.** at 280 and 360 nm, resp. The gel synthesized in H2O absorbed and delivered myoglobin while the gel synthesized in DMSO did not. Both gels absorbed and delivered vitamin B12. Release kinetics of the vitamin from various gels showed 2 regions over time. The 1st occurred within 5 min of the temp. change and was a relatively sudden release of the soln. nearest the surface of the gel. The 2nd region showed a much slower diffusion rate out of the gel after the initial stage shrinkage was complete.

L11 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2001 ACS

| | |
|---|---|
| ACCESSION NUMBER: | 1987:61186 CAPLUS |
| DOCUMENT NUMBER: | 106:61186 |
| TITLE: | A comparison of the efficacy and toxicity of and intraocular pressure response to viscous solutions in the anterior chamber |
| AUTHOR(S): | Glasser, David B.; Matsuda, Mamoru; Edelhauser, Henry F. |
| CORPORATE SOURCE: | Dep. Physiol., Med. Coll. Wisconsin, Milwaukee, WI, 53226, USA |
| SOURCE: | Arch. Ophthalmol. (Chicago) (1986), 104(12), 1819-24<br>CODEN: AROPAW; ISSN: 0003-9950 |
| DOCUMENT TYPE: | Journal |
| LANGUAGE: | English |

AB Various tests were used for an in vitro comparison of endothelial protection offered by 4 viscous solns. of 1% Na hyaluronate [9067-32-7], 3% Na hyaluronate, 4% **chondroitin**

**sulfate** [**9007-28-7**], and 2% methylcellulose [**9004-67-5**]. Wide-field specular microscopy with anal. of endothelial **cell** d. and morphol. evaluation, pachymetry, and intraocular pressure **measurements** were also used to study the toxicity of the viscous solns. in an in vivo cat model with and without anterior chamber washout. All 4 solns. provided complete endothelial protection from mech. trauma. Endothelial **cell** d. and morphol. nature were unaffected during the in vivo toxicity study. A mild increase in intraocular inflammation occurred at 1 and 2 days after intraocular injection with all 4 viscous solns. Intraocular pressure elevations peaked within 4 h after instillation of the viscous solns. and were reduced by anterior chamber washout.

IT **9004-67-5**, Methylcellulose **9007-28-7**, **Chondroitin sulfate**
RL: BIOL (Biological study)
(eye cornea endothelium protection by and toxicity of viscous solns. contg.)

L11 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1980:209795 CAPLUS
DOCUMENT NUMBER: 92:209795
TITLE: Neutralization of cytotoxicity of spermine on the proliferation of rat liver **cells** in tissue culture
AUTHOR(S): Katsuta, Hajim; Takaoka, Toshiko; Huh, Namho
CORPORATE SOURCE: Sch. Med., Dokkyo Univ., Mibu, 321-02, Japan
SOURCE: Jpn. J. Exp. Med. (1980), 50(1), 1-6
CODEN: JJEMAG; ISSN: 0021-5031
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Among various high-mol.-wt. and other substances, preincubation of bovine serum albumin (BSA) at 37.degree. for 24 h with spermine (I) [71-44-3] decreased the cytotoxicity of the latter to liver culture **cells**. Preincubation with the other substances also neutralized I cytotoxicity fairly. The neutralizing activity rate of BSA, **measured** by rate of **cell** proliferation, was not affected much by preincubation at 60.degree. for 30 min, but was reduced a little by preincubation at 100.degree. for 2 min. Trypsin digestion reduced its activity markedly. Lipid-free BSA showed similar activity that of untreated BSA. When I and BSA were mixed and added to the medium to the **cells** died within a few hs. Thus, BSA accelerated I cytotoxicity when added to the medium simultaneously, but it neutralized I toxicity to the **cells** when preincubated.

IT **9004-67-5 9007-28-7**
RL: BIOL (Biological study)
(spermine cytotoxicity to liver **cells** response to)

L11 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1975:15094 CAPLUS
DOCUMENT NUMBER: 82:15094
TITLE: Specificity of in vitro murine B **cells** activation by protein and **polysaccharide** polymers
AUTHOR(S): Strong, Douglas M.; Ahmed, Aftab A.; Scher, Irwin; Knudsen, Richard C.; Sell, Kenneth W.
CORPORATE SOURCE: Natl. Nav. Med. Cent., Nav. Med. Res. Inst.,

Bethesda, Md., USA
SOURCE: J. Immunol. (1974), 113(5), 1429-37
CODEN: JOIMA3
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The ability of various polynucleotide and carbohydrate polymers to induce B **cell** mitogenesis as **measured** by thymidine-3H uptake was examd. **Cell** suspensions depleted of T **cells** were obtained from spleens of Nu/Nu, TxBm mice, or by treatment of normal spleens with anti-.theta. serum and complement. Specific B **cell** activation was demonstrated by use of the following single and double stranded ribonucleotides, poly A, U, A.cntdot.U, G, and X. In addn. carbohydrate polymers, such as dextran sulfate and methylcellulose, as well as the thymic-independent antigens, pneumococcal **polysaccharide** (SSSIII) and polymd. flagellin, produced B **cell** activation. Although dextran sulfate (mol. wt. 500,000) produced activation, lower mol. wt. dextran sulfate (75,000) did not. Escherichia coli lipopolysaccharide (LPS) contamination of all mitogenic materials was ruled out by antiserums directed against the active portions of LPS, lipid-A. Conformation of specific B **cell** activation was obtained by elimination of responses by anti-mouse B lymphocyte antigen treatment of **cell** suspensions and failure of activated suspensions to produce lymphotoxin, a T **cell** lymphokine which could be induced with phytohemagglutinin or concanavalin A. These studies indicated that B **cell** activation required a unique mol. structure not limited singly by polymeric repeating **determinants** or a polyanionic nature but also a min. mol. wt. as well as secondary and tertiary characteristics of the mitogenic compd.

IT **9004-67-5**
RL: BIOL (Biological study)
(lymphocyte bone marrow activation by)

L11 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1964:478614 CAPLUS
DOCUMENT NUMBER: 61:78614
ORIGINAL REFERENCE NO.: 61:13723d-h
TITLE: Comparison of macromolecular hypertension due to poly(vinyl alcohol) and **methyl cellulose**, in respect to the role of sodium chloride
AUTHOR(S): Hall, Charles E.; Hall, Octavia
SOURCE: Lab. Invest. (1962), 11(10), 826-36
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Rats were treated subcutaneously with 1% **Me cellulose** or 5% poly(vinyl alc.) (PVA), and were maintained on either 1% NaCl or distd. H2O for drinking. Their response was compared to that of control animals receiving either saline or water. **Me cellulose** caused hypertension in 60%. of the animals that consumed saline, and in none on distd. H2O. The latter also consumed no more H2O than did controls and showed no significant changes in organ wt., although foam **cells** were present in the renal glomeruli. The **polysaccharide** also failed to cause a significantly increased salt intake in animals on 1% NaCl, despite the hypertension and renal enlargement thus induced in many of them. Hypertensive animals also tended to have larger,

more heavily infiltrated glomeruli, some of which showed hyalinization and adhesion of glomerular tufts to capsular epithelium. Treatment with PVA led to somewhat different results. All treated animals became hypertensive regardless of the type of fluid consumed, although those on NaCl soln. de- veloped much higher pressures and often fluid accumulations in the abdominal and thoracic cavities. Fluid intake was increased in both groups, but whereas those on NaCl consumed larger amts. from the first day of **measurement** and increased intake at a rapid rate until they deteriorated in health, H2O intake was increased only in the third week of treatment and the rate of in- crease thereafter was much slower. Again, in both groups, there was thymic atrophy and enlargement of the adrenals, spleen, heart, and kidneys. The response of the adrenals and spleen was not affected by salt intake, but the effect on the other organs was appreciably enhanced. Vascular lesions in PVA-treated rats on H2O were almost entirely confined to the kidneys, in which glomerulonephritis, intersititial nephritis, and glomerulosclerosis were the typical lesions. These were further aggravated by a high salt intake which, in addn., caused lesions to develop in the heart and in pancreatic and splenic arteries. There was some redn. in hemoglobin of rats treated with either **polysaccharide**, and in the hematocrit of rats given PVA, but only this **polysaccharide** produced a frank and progressive anemic state, most marked in severely hypertensive animals drinking salt.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 11:17:50 ON 24 OCT 2001)

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L12            22 S L8
L13             4 S L9
L14             2 S L10
L15            28 S L12 OR L13 OR L14
L16            24 DUP REM L15 (4 DUPLICATES REMOVED)
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L16 ANSWER 1 OF 24 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD

ACCESSION NUMBER: 2001-308366 [32] WPIDS
DOC. NO. CPI: C2001-095258
TITLE: Sustained release microspheres for administrating drugs, comprises a carrier protein, a water soluble polymer, a polyanionic **polysaccharide** and divalent calcium or magnesium.
DERWENT CLASS: A96 B04
INVENTOR(S): BLIZZARD, C D; BROWN, L R; RASHBA-STEP, J; RISKE, F J; SCOTT, T L
PATENT ASSIGNEE(S): (EPIC-N) EPIC THERAPEUTICS INC
COUNTRY COUNT: 94
PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|---|---|---|---|---|---|
| WO 2001028524 | A1 | 20010426 | (200132)* | EN | 71 |

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001011980 A 20010430 (200148)

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---|---|---|---|
| WO 2001028524 A1 | | WO 2000-US28200 | 20001012 |
| AU 2001011980 A | | AU 2001-11980 | 20001012 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|---|---|---|
| AU 2001011980 A | Based on | WO 200128524 |

PRIORITY APPLN. INFO: US 1999-420361 19991018
AN 2001-308366 [32] WPIDS
AB WO 200128524 A UPAB: 20010611
NOVELTY - Sustained release microspheres comprising a carrier protein (I), a water soluble polymer (II), a first complexing agent (III) that is a polyanionic **polysaccharide**, and a second complexing agent (IV) comprising a divalent metal cation comprising calcium or magnesium, are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a syringe containing a single dose of the microspheres, including a needle having a bore size of 14-30 gauge; and

(2) forming a microsphere comprising:

(a) forming an aqueous mixture of (I), (II), (III) and (IV);

(b) allowing the microspheres to form in the aqueous mixture; and

(c) stabilizing the microspheres, preferably by contacting the microspheres with a crosslinking agent and/or exposing the microspheres to an energy source, preferably heat.

USE - The microspheres are useful for administration of drugs, for a wide variety of separations, diagnostic, therapeutic, industrial, commercial and research purposes e.g. in vivo diagnosis (e.g. where the microspheres can include a macromolecule such as an immunoglobulins or **cell** receptor labeled with a **detectable** label). They can be labeled for diagnosis of proliferative disorders such as cancer, or can be used for purification of molecules from complex mixtures, as reagents for **detection** or **quantification** of specific molecules or for production of molecules such as antibodies. They can also be used as adjuvants for vaccine production by injection into e.g. mice or rabbits to trigger enhanced immune responses. The microspheres can also be used in cleaning formulations such as enzyme particles for addition to detergents, cosmetics such as the formation of collagen particles to be suspended in a lotion or cream, ink or paint.

ADVANTAGE - Prior art micro particles or beads were difficult and expensive to produce and had a wide size distribution, often lacked uniformity and failed to exhibit long term release kinetics when the concentration of active ingredients was high. The new microspheres are of a dimension which permits the delivery using a needleless syringe, eliminating disposal problems inherent to needles which must be disposed as biohazard waste products. The microspheres also have qualities suitable for delivery by other

parenteral and non-parenteral routes.
Dwg.0/13

L16 ANSWER 2 OF 24 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2001-112499 [12] WPIDS
CROSS REFERENCE: 2001-091751 [09]
DOC. NO. CPI: C2001-033517
TITLE: Method for controlling the flux of penetrants across an adaptable semi-permeable barrier is useful for administering an agent to a mammalian body or a plant and for generating an immune response by vaccinating the mammal.
DERWENT CLASS: A18 A28 A96 B05 B07 D16 D22
INVENTOR(S): CEVC, G; RICHARDSEN, H; WEILAND-WAIBEL, A
PATENT ASSIGNEE(S): (IDEA-N) IDEA AG
COUNTRY COUNT: 94
PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|---|---|---|---|---|---|
| WO 2001001963 | A1 | 20010111 | (200112)* | EN | 110 |

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000061557 A 20010122 (200125)

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---|---|---|---|
| WO 2001001963 | A1 | WO 2000-EP6367 | 20000705 |
| AU 2000061557 | A | AU 2000-61557 | 20000705 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|---|---|---|
| AU 2000061557 | A Based on | WO 200101963 |

PRIORITY APPLN. INFO: WO 1999-EP4659 19990705
AN 2001-112499 [12] WPIDS
CR 2001-091751 [09]
AB WO 200101963 A UPAB: 20010508
NOVELTY - A method for controlling the flux of penetrants across an adaptable semi-permeable porous barrier is new.
DETAILED DESCRIPTION - A method for controlling the flux of penetrants across an adaptable semi-permeable membrane comprises suspending the penetrants in a polar liquid in the form of fluid droplets surrounds by a membrane-like coating comprising at least two kinds of amphiphilic substances with a tendency to aggregate, selecting a dose of the penetrants to control the flux of the penetrants across the barrier and applying the selected dose of the formulation onto the area of the barrier. The amphiphilic substances differ by a factor of at least 10 in solubility in the polar liquid

and the homo-aggregates of the more soluble substance and hetero-aggregates have a preferred average diameter smaller than the diameter of the homo-aggregates of the less soluble substance. The more soluble substance tends to solubilize the droplet and comprises up to 99% of the solubilizing concentration or saturating concentration in the unstabilized droplet. The presence of the more soluble substance lowers the average elastic energy of the coating by at least 5 times preferably more than 10 times the average elastic energy of red blood **cells** or of phospholipid bilayers with fluid aliphatic chains. The penetrants are able to transport agents through the pores of the barrier or enable agent permeation through the pores after the penetrants have entered the pores.

INDEPENDENT CLAIMS are included for:

(i) a kit containing the formulation;

(ii) a patch containing the formulation; and

(iii) a method of administering an agent to a mammalian body or plant comprising the novel method.

USE - The method is useful for administering an agent to a mammalian body or a plant, for generating an immune response by vaccinating the mammal and for treating inflammatory disease, dermatosis, kidney or liver failure, adrenal insufficiency, aspiration syndrome, Behcet syndrome, bites and stings, blood disorders (cold-hemagglutinin disease), hemolytic anaemia, hypereosinophilic, hypoplastic anaemia, macroglobulinaemia and thrombocytopenic purpura), bone disorders, cerebral oedema, Cogan's syndrome, congenital adrenal hyperplasia, connective tissue disorders (lichen, lupus erythematosus, polymyalgia rheumatica, polymyositis and dermatomyositis), epilepsy, eye disorders (cataracts), Graves' ophthalmopathy, hemangioma, herpes infections, neuropathies, retinal vasculitis, scleritis, gastro-intestinal disorders (inflammatory bowel disease, nausea and oesophageal damage), hypercalcaemia, infections, Kawasaki disease, myasthenia gravis, pain syndromes, polyneuropathies, pancreatitis, respiratory disorders (asthma), rheumatoid disease, osteoarthritis, rhinitis, sarcoidosis, skin diseases, alopecia, eczema, erythema multiforme, lichen, pemphigus and pemphigoid, psoriasis, pyoderma gangrenosum, urticaria and thyroid and vascular disorders.

ADVANTAGE - Increasing the applied dose above a threshold level affects both the drug/penetrant distribution and also **determines** the rate of penetrant transport across the barrier.

Dwg.0/14

L16 ANSWER 3 OF 24 MEDLINE

ACCESSION NUMBER: 2001205596 MEDLINE

DOCUMENT NUMBER: 21126265 PubMed ID: 11226784

TITLE: Effect of Healon5 and 4 other viscoelastic substances on intraocular pressure and endothelium after cataract surgery.

AUTHOR: Holzer M P; Tetz M R; Auffarth G U; Welt R; Volcker H E

CORPORATE SOURCE: Department of Ophthalmology, Humboldt University Berlin, Campus Virchow Klinikum, Germany.

SOURCE: JOURNAL OF CATARACT AND REFRACTIVE SURGERY, (2001 Feb) 27 (2) 213-8.
Journal code: JPB; 8604171. ISSN: 0886-3350.

PUB. COUNTRY: United States

(CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200104
ENTRY DATE: Entered STN: 20010417
Last Updated on STN: 20010417
Entered Medline: 20010412

AB PURPOSE: To compare the ophthalmic viscoelastic device (OVD) Healon5 (sodium hyaluronate 2.3%) with 4 other commonly used OVDs during phacoemulsification and intraocular lens implantation in terms of influence on intraocular pressure (IOP) postoperatively and endothelial **cells** preoperatively and postoperatively. SETTING: Department of Ophthalmology, Ruprecht-Karls-University Heidelberg, Germany. METHODS: This clinical randomized prospective study, in which patients and observer were masked, comprised 81 eyes. Seventy-four eyes (mean patient age 71.2 years +/- 7.8 [SD]) completed all preoperative and 5 postoperative examinations. The OVDs used were OcuCoat and Celoftal (hydroxypropyl methylcellulose 2.0%), Viscoat (sodium hyaluronate 3.0%-**chondroitin sulfate** 4.0%), Healon GV (sodium hyaluronate 1.4%), and Healon5 (sodium hyaluronate 2.3%). Intraocular pressure was **measured** by standard Goldmann applanation tonometry preoperatively and 4 to 6 and 24 hours and 7, 30, and 90 days postoperatively. Endothelial **cell** counts were done preoperatively and 90 days postoperatively using a Pro/Koester WFSCM contact endothelial microscope. Exclusion criteria were IOP greater than 21 mm Hg at the preoperative examination, age younger than 40 years, significant corneal pathology, and a history or presence of uveitis or pseudoexfoliation syndrome. RESULTS: All groups had increased IOP 4 hours postoperatively. The Healon5 group had the highest mean pressure (24.9 mm Hg) followed by the Viscoat group (23.6 mm Hg). The mean IOP in the other OVD groups was less than 22.1 mm Hg. These differences were not significant. Twenty-four hours postoperatively and at all subsequent examinations, mean IOP was below 20 mm Hg. The Healon5 group had the lowest mean endothelial **cell** loss (6.2%), significantly lower than in the other groups ($P < .02$). CONCLUSION: With all 5 OVDs, endothelial **cell** loss was found, with the lowest in the Healon5 group, and IOP was increased 4 to 6 hours postoperatively. After 24 hours, no significant increases in IOP were noted.

L16 ANSWER 4 OF 24 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1999-418866 [35] WPIDS
DOC. NO. CPI: C1999-123113
TITLE: New compositions containing keratinocyte growth factor-2.
DERWENT CLASS: A11 A96 B04
INVENTOR(S): CHOPRA, A; GENTZ, R L; KAUSHAL, P; KHAN, F; SPITZNAGEL, T; UNSWORTH, E
PATENT ASSIGNEE(S): (HUMA-N) HUMAN GENOME SCI INC
COUNTRY COUNT: 85
PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|---|---|---|---|---|---|
| WO 9932135 | A1 | 19990701 | (199935)* | EN | 86 |

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC
MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI
GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI
SK SL TJ TM TR TT UA UG US UZ VN YU ZW

AU 9919057 A 19990712 (199950)
EP 1041996 A1 20001011 (200052) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
CN 1283997 A 20010214 (200130)
US 6238888 B1 20010529 (200132)

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---|---|---|---|
| WO 9932135 | A1 | WO 1998-US26085 | 19981222 |
| AU 9919057 | A | AU 1999-19057 | 19981222 |
| EP 1041996 | A1 | EP 1998-963812 | 19981222 |
| | | WO 1998-US26085 | 19981222 |
| CN 1283997 | A | CN 1998-813339 | 19981222 |
| US 6238888 | B1 Provisional | US 1997-68493 | 19971222 |
| | | US 1998-218444 | 19981222 |

FILING DETAILS:

| PATENT NO | KIND | | PATENT NO |
|---|---|---|---|
| AU 9919057 | A | Based on | WO 9932135 |
| EP 1041996 | A1 | Based on | WO 9932135 |

PRIORITY APPLN. INFO: US 1997-68493 19971222; US 1998-218444 19981222

AN 1999-418866 [35] WPIDS

AB WO 9932135 A UPAB: 19990902

NOVELTY - Compositions containing keratinocyte growth factor-2 prepared as ligand, lyophilized or gel formulations, used for treating e.g. wound, psoriasis, inflammatory bowel disease, ulcers or diabetes are new.

DETAILED DESCRIPTION - (A) A novel pharmaceutical composition comprises:

(1) 0.02 to 40 mg/ml of a keratinocyte growth factor-2 (KGF-2) polypeptide;

(2) a buffer of pH 5.0 to 8.0 at a concentration of 5-50 mM; and

(3) a diluent to bring the composition to a designated volume; or a reaction product of these.

INDEPENDENT CLAIMS are also included for the following:

(1) a pharmaceutical composition comprising:

(a) as in (Aa)-(Ac); and

(b) (b) a bulking agent; or a reaction product of these;

(2) a pharmaceutical composition comprising:

(i) a 0.02 to 40 mg/ml of KGF-2 polypeptide;

(ii) 5-20 mM of citric acid or a salt;

(iii) 0.01-125 mM of NaCl;

(iv) 0.1-10 mM of EDTA; and

(v) 2-15% w/v one or more of sucrose, mannitol, glycine or trehalose; and

(vi) water;

(3) a thickened KGF-2 polypeptide solution comprising formed by mixing:

(a) a topically effective amount of a KGF-2 polypeptide;

(b) 10-500 mM sodium citrate buffer;

(c) 0.01-150 mM NaCl;

(d) 1 mM EDTA;

(e) 0.01-7% sucrose;

(f) 0.75-1.5% (w/w) carboxymethyl cellulose or 0.5-1.5% hydroxypropyl **methyl cellulose** or 0.25-0.75% hydroxyethyl cellulose or 0-1% carbomer or any combination;

(4) a KGF-2 gel formulation of pH 6.2 comprising:

(a) as in (3a)-(**3d**);

(b) 0.1-7% sucrose;

(c) 4-18% Pluronic F127 (RTM);

(5) a KGF-2 gel formulation comprising:

(a) 0.01 to 10 mg/ml of a KGF-2 polypeptide;

(b) 5 to 20 mM of sodium citrate;

(c) 10 to 25% (w/v) Pluronic 127 (RTM) or Poloxamer 407 (RTM) and water.

USE - The compositions can be used to stimulate epithelial cell proliferation and basal keratinocytes for the purpose of wound healing, and to stimulate hair follicle production and healing of dermal wounds. The compositions can also be used to stimulate differentiation of cells, e.g. muscle cells, cells which make up nervous tissue, prostate cells and lung cells. They can be used to stimulate wound healing of wounds including surgical wounds, excisional wounds, deep wounds involving damage of the dermis and epidermis, eye tissue wounds, dental tissue wounds, oral cavity wounds, diabetic ulcers, dermal ulcers, cubitus ulcers, arterial-ulcers, venous stasis ulcers, and burns resulting from heat exposure to extreme temperatures of heat or cold, or exposure to chemicals, in normal individuals and those subject to conditions which induce abnormal wound healing such as uremia, malnutrition, vitamin deficiencies, obesity, infection, immunosuppression and complications associated with systemic treatment with steroids, radiation therapy, and antineoplastic drugs and antimetabolites. The compositions are also useful for promoting the healing of wounds associated with ischemia and ischemia and ischemic injury, e.g. chronic venous leg ulcers caused by an impairment of venous circulatory system return and/or insufficiency; for promoting dermal reestablishment subsequent to dermal loss, increasing the tensile strength of epidermis and epidermal thickness, and increasing the adherence of skin grafts to a wound bed and to stimulate re-epithelialization from the wound bed, to stimulate epithelial cell proliferation and basal keratinocytes for treating burns and skin defects such as psoriasis and epidermolysis bullosa, to increase the adherence of skin grafts to a wound bed and to stimulate re-epithelialization from the wound bed, to reduce the side effects of gut toxicity that result from radiation, chemotherapy treatments or viral infections, to treat diseases and conditions of the liver, lung, kidney, breast, pancreas, stomach, small intestine, and large intestine, to treat inflammatory bowel diseases, diabetes, thrombocytopenia, hypofibrinogenemia, hypoalbuminemia, hypoglobulinemia, hemorrhagic cystitis, xerostomia, keratoconjunctivitis sicca, to stimulate the epithelial cells of the salivary glands, lacrimal glands and stimulating re-epithelialization of the sinuses and the growth of nasal mucosa.

ADVANTAGE - The co-ingredients used in the formulations provide storage stability to the KGF-2 polypeptide, further enhance soft-tissue healing activity of the therapeutic composition, and/or provide the KGF-2 polypeptide in an active form while allowing facile application and administration for particular therapeutic purposes.
Dwg.0/5

L16 ANSWER 5 OF 24 MEDLINE
ACCESSION NUMBER: 1998373140 MEDLINE
DOCUMENT NUMBER: 98373140 PubMed ID: 9707846
TITLE: Effects of viscoelastic ophthalmic solutions on **cell** cultures.
AUTHOR: Madhavan H N; Roy S
CORPORATE SOURCE: Vision Research Foundation, Sankara Nethralaya, Chennai, India.
SOURCE: INDIAN JOURNAL OF OPHTHALMOLOGY, (1998 Mar) 46 (1) 37-40.
Journal code: GK4; 0405376. ISSN: 0301-4738.
PUB. COUNTRY: India
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199809
ENTRY DATE: Entered STN: 19980925
Last Updated on STN: 19980925
Entered Medline: 19980915

AB The development of mild but significant inflammation probably attributable to viscoelastic ophthalmic solutions in cataract surgery was recently brought to the notice of the authors, and hence a study of the effects of these solutions available in India, on **cell** cultures was undertaken. We studied the effects of 6 viscoelastic ophthalmic solutions (2 sodium hyaluronate designated as A and B, and 4 hydroxypropylmethylcellulose designated as C, D, E and F) on HeLa, Vero and BHK-21 **cell** lines in tissue culture microtitre plates using undiluted, 1:10 and 1:100 dilutions of the solutions, and in cover slip cultures using undiluted solutions. Phase contrast microscopic examination of the solutions was also done to **determine** the presence of floating particles. The products D and F produced cytotoxic changes in HeLa **cell** line and these products also showed the presence of floating particles under phase contrast microscopy. Other products did not have any adverse effects on the **cell** lines nor did they show floating particles. The viscoelastic ophthalmic pharmaceutical products designated D and F have cytotoxic effects on HeLa **cell** line which appears to be a useful **cell** line for testing these products for their toxicity. The presence of particulate materials in products D and F indicates that the methods used for purification of the solution are not effective.

L16 ANSWER 6 OF 24 MEDLINE
ACCESSION NUMBER: 97303365 MEDLINE
DOCUMENT NUMBER: 97303365 PubMed ID: 9159690
TITLE: Corneal endothelial protection by different viscoelastics during phacoemulsification.
AUTHOR: Ravalico G; Tognetto D; Baccara F; Lovisato A
CORPORATE SOURCE: Istituto di Clinica Oculistica, Universita di Trieste, Ospedale Maggiore, Italy.

SOURCE: JOURNAL OF CATARACT AND REFRACTIVE SURGERY, (1997 Apr) 23 (3) 433-9.
Journal code: JPB; 8604171. ISSN: 0886-3350.
PUB. COUNTRY: United States
(CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199707
ENTRY DATE: Entered STN: 19970805
Last Updated on STN: 19970805
Entered Medline: 19970723

AB PURPOSE: To evaluate corneal endothelium morphology and function after phacoemulsification using different viscoelastics. SETTING: Eye Clinic, University of Trieste, Italy. METHODS: This prospective, randomized study included results of preoperative and postoperative (7, 30, and 90 days) examinations of 66 patients scheduled for phacoemulsification without ocular pathology; 8 patients were excluded. Patients were randomly assigned to one of four groups based on type of viscoelastic used: 1% sodium hyaluronate (Healon); 1.4% sodium hyaluronate (Healon GV); 4% sodium **chondroitin sulfate**-3% sodium hyaluronate (Viscoat); 2% hydroxypropyl methylcellulose (Hymecel). Mean **cell** density and **cell** size variation coefficient were **determined** by specular microscopy; central corneal thickness, by ultrasonic pachymetry; and endothelial permeability coefficient and active pump function, by anterior segment fluorophotometry. RESULTS: There were no significant differences in postoperative mean **cell** loss among the groups. The **cell** size variation coefficient was altered in all groups 7 days after surgery and was still impaired at 30 days in the Hymecel group. A significant increase in mean corneal thickness, endothelial permeability, and active pump function occurred in the Healon and Hymecel groups 7 days after surgery. These parameters were still altered 30 days after surgery in the Hymecel group. Endothelial functional alterations did not occur in the Healon GV or Viscoat group. CONCLUSION: Viscoat and Healon GV are effective in minimizing functional damage of endothelial structure in the early medium-term postoperative period.

L16 ANSWER 7 OF 24 MEDLINE
ACCESSION NUMBER: 96223843 MEDLINE
DOCUMENT NUMBER: 96223843 PubMed ID: 8632208
TITLE: Fermentable carbohydrates elevate plasma enteroglucagon but high viscosity is also necessary to stimulate small bowel mucosal **cell** proliferation in rats.
AUTHOR: Gee J M; Lee-Finglas W; Wortley G W; Johnson I T
CORPORATE SOURCE: Institute of Food Research, Colney, Norwich, UK.
SOURCE: JOURNAL OF NUTRITION, (1996 Feb) 126 (2) 373-9.
Journal code: JEV; 0404243. ISSN: 0022-3166.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199607
ENTRY DATE: Entered STN: 19960715
Last Updated on STN: 19960715

Entered Medline: 19960701

AB Enteroglucagon is a collective term for a small family of peptides derived from proglucagon by post-translational processing in the L-**cells** of the distal small intestine and colon. There is evidence that it inhibits gastric secretion, and high levels of enteroglucagon occur in plasma during intestinal adaptation, which suggests that it may also function as a trophic factor for the intestine. Certain types of soluble non-starch **polysaccharide** (dietary fiber) stimulate the release of enteroglucagon in rats but the mechanism is unknown. In this study we explored the importance of the viscosity and fermentability of nonabsorbed carbohydrates as **determinants** of plasma enteroglucagon and mucosal **cell** proliferation in the distal ileum of rats. Replacement of cellulose (10 g/kg) with guar gum in a semisynthetic diet led to a prompt and sustained rise in plasma enteroglucagon concentrations. Our initial hypothesis that this was a consequence of delayed nutrient absorption was disproven by the fact that hydroxypropylmethylcellulose (HPMC), a viscous but nonfermentable **polysaccharide**, had no effect on plasma enteroglucagon under the same conditions. In contrast, the nondigestible disaccharide lactitol led to a prolonged rise in plasma enteroglucagon, similar to that observed with guar gum. Lactitol is nonviscous, but highly fermentable, and we conclude that fermentable carbohydrate is an important stimulus for the release of enteroglucagon under our experimental conditions. There was no evidence that enteroglucagon released by this mechanism exerted trophic effects on the distal small intestinal mucosa.

L16 ANSWER 8 OF 24 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1995:152908 BIOSIS
DOCUMENT NUMBER: PREV199598167208
TITLE: Nontransformed colony-derived stromal **cell** lines from normal human marrows: II. Phenotypic characterization and differentiation pathway.
AUTHOR(S): Li, Jian; Sensebe, Luc; Herve, Patrick; Charbord, Pierre (1)
CORPORATE SOURCE: (1) CRTS, 1 Boulevard Fleming, BP 1937, 25020 Besancon France
SOURCE: Experimental Hematology (Charlottesville), (1995) Vol. 23, No. 2, pp. 133-141. ISSN: 0301-472X.
DOCUMENT TYPE: Article
LANGUAGE: English

AB In a previous report, we described a method to generate **cell** lines derived from stromal colonies (colony-derived **cell** lines (CDCL)). In a first step, colonies were obtained from plating **cells** from adherent layers of human long-term bone marrow cultures (LTBMC) in **methyl-cellulose** in the presence of interleukin-1-beta (IL-1-beta) (20 U/mL) and tumor necrosis factor-alpha (TNF-alpha) (200 U/mL). In a second step, **cell** lines were derived from individual colonies cultured in liquid medium with 20 ng/mL basic fibroblast growth factor (bFGF). In this report, we describe the phenotype of **cells** from more than 100 **cell** lines. CDCL did not contain **cells** of hematopoietic origin, which indicates that the culture system did not allow the growth of hematopoietic precursors. CDCL did not contain endothelial-like **cells**, similarly to primary adherent layers. CDCL comprised stromal **cells**, as

defined by membrane antigens recognized by monoclonal antibodies 6-19, Stro-1 and 1B10. These **cells** belonged to the family of connective tissue-forming **cells** since they synthesized interstitial collagens I, III, and V; nonplasmatic EDa+ and EDb-fibronectin; tenascin; and **chondroitin-sulfate** . Study of the time course of CDCL showed that the lines differed from one another according to their proliferative capacity: 32% of CDCL grew quickly, yielding about 10,000 **cells** in 10 days; 36% of CDCL grew slowly, yielding 1000 **cells** in 10 days; and the remaining 32% had intermediate proliferative capacity. For CDCL with a high proliferative capacity, a distinctive differentiation pattern could be described. At culture, inception **cells** from the lines were vimentin+ and laminin+. Over time, several cytoskeletal and extracellular matrix (ECM) proteins indicative of vascular smooth muscle differentiation were expressed, including: the alpha-SM-actin isoform; the actin-binding proteins, smooth muscle myosin-heavy chain (SMMHC), SM1; h-caldesmon; calponin; gelsolin; and the ECM proteins, collagen IV and elastin. In full-grown lines, **cells** were similar to immature, intimal, vascular smooth muscle **cells** as found beneath the endothelium in adult aortas. Because of the coupling between proliferation and differentiation, the differentiation pattern seems to be under genetic control. However, since the coupling was not stringent during the whole lifespan of the lines, it is possible that cytokines are also involved, ensuring autocrine regulation of CDCL development.

L16 ANSWER 9 OF 24 MEDLINE
ACCESSION NUMBER: 94290702 MEDLINE
DOCUMENT NUMBER: 94290702 PubMed ID: 7517294
TITLE: Cytotoxicity of viscoelastics on cultured corneal epithelial **cells measured** by plasminogen activator release.
AUTHOR: Lindquist T D; Edenfield M
CORPORATE SOURCE: Department of Ophthalmology, University of Washington, Seattle 98195-0001.
SOURCE: JOURNAL OF REFRACTIVE AND CORNEAL SURGERY, (1994 Mar-Apr) 10 (2) 95-102.
Journal code: BY6; 9431306. ISSN: 1081-0803.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199408
ENTRY DATE: Entered STN: 19940815
Last Updated on STN: 19960129
Entered Medline: 19940804

AB BACKGROUND: Plasminogen activator has been shown to be released by epithelial **cells** following corneal injury. The demonstration of the release of plasminogen activator from cultured corneal epithelial **cells** has been used for developing a cytotoxicity test, the Corneal Epithelial Plasminogen Activator test, which compares changes in the level of plasminogen activator in tissue culture media following chemical exposure as an index of chemical injury. METHODS: Cultured rabbit corneal epithelial **cells** were exposed to varying concentrations of several viscoelastics for 1 hour. Release of plasminogen activator into the tissue culture media following exposure to the viscoelastic agent

was studied as an index of chemical injury. RESULTS: The least cytotoxicity to cultured rabbit epithelium was associated with those viscoelastic agents containing methylcellulose. A 1-hour exposure to most concentrations of methylcellulose and **chondroitin sulfate** (Phacote) and methylcellulose (Occucoat) demonstrated release of greater amounts of plasminogen activator than was seen following a similar exposure to balanced salt solution, suggesting the greatest protective effect of these two viscoelastics. In contrast, sodium hyaluronate and **chondroitin sulfate** (Viscoat) showed decreased amounts of plasminogen activator release after a 1-hour exposure to cultured corneal epithelial **cells** demonstrating cytotoxicity. Polyacrylamide (Orcolon) and most diluted preparations of sodium hyaluronate (Healon and Healon Yellow) showed only mild reductions in the release of plasminogen activator, whereas undiluted sodium hyaluronate preparations were nearly as cytotoxic as Viscoat. CONCLUSIONS: This study suggests that viscoelastic agents containing methylcellulose (Phacote and Occucoat) may be most protective of the corneal epithelium during ophthalmic surgery. The clinical success of several dilute viscoelastic solutions as tear substitutes was corroborated by the lack of cytotoxicity seen in this study. Viscoat and undiluted sodium hyaluronate preparations showed the greatest cytotoxicity to cultured rabbit corneal epithelium.

L16 ANSWER 10 OF 24 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1993-111662 [14] WPIDS
DOC. NO. CPI: C1996-067110
TITLE: Rapid regeneration of human corneal endothelium - by injection of fibroblast growth factor, useful e.g. for treating damage caused by injury, surgery or disease.
DERWENT CLASS: A96 B04
INVENTOR(S): BELKIN, M; LANDSHMAN, N; SAVION, N
PATENT ASSIGNEE(S): (UYRA-N) UNIV RAMOT APPL RES & IND DEV LTD; (UYRA-N) UNIV RAMOT APPLIED RES & IND DEV LTD
COUNTRY COUNT: 2
PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|---|---|---|---|---|---|
| IL 82295 | A | 19930221 | (199314)* | | |
| US 5510329 | A | 19960423 | (199622)B | | 9 |

APPLICATION DETAILS:

| PATENT NO | KIND | | APPLICATION | DATE |
|---|---|---|---|---|
| IL 82295 | A | | IL 1987-82295 | 19870422 |
| US 5510329 | A | Cont of | US 1988-185893 | 19880426 |
| | | Cont of | US 1991-673867 | 19910322 |
| | | | US 1992-997664 | 19921228 |

PRIORITY APPLN. INFO: IL 1987-82295 19870422; US 1992-997664 19921228
AN 1993-111662 [14] WPIDS
AB US 5510329 A UPAB: 19960604 ABEQ treated as Basic

Methods are claimed for enhancing corneal endothelium (CE) regeneration, protecting CE against degeneration caused by surgery, enhancing healing of injured or diseased CE or enhancing regeneration of transplanted CE tissue in the eye of a human patient. The methods all involve injection of a compsn. (I) contg. fibroblast growth factor (FGF) in a carrier into the anterior chamber of the eye. In the cases other than regeneration of transplanted CE tissue, the treatment is limited to one injection.

USE - The methods are useful for inducing CE regeneration in a wide range of ophthalmological situations, e.g. after surgical or accidental injury to the CE stroma or epithelium; for protection of CE before, during and after anterior chamber surgery (e.g. for cataract removal of keratoplasty) and for enhancing growth after such procedures; for improving donor CE preservation before keratoplasty; and for growth enhancement of any ocular tissues during and after injury or disease. (I) is esp. useful in cases of ocular trauma or after corneal implantation, where major damage to CE is frequent.

ADVANTAGE - (I) causes spontaneous and rapid regeneration of damaged CE, to provide corneal transparency and full functioning of the eye. The treatment enhances endothelial **cell** density, improves polygonal shape of the **cells** and reduces thickness of the cornea.

Dwg.1B/3

AB IL 82295 A UPAB: 19960604

Prepn. comprises: a regeneration enhancing **quantity** of fibroblast growth factor (FGF) in a physiologically acceptable carrier and as viscosity enhancer a **quantity** of a component enhancing the viscosity and adherence of the prepn. to the site applied to, selected from **hyaluronic** acid salts, **chondroitin sulphate, methyl cellulose** and water-soluble collagen exctract.

USE/ADVANTAGE - For application to (part of) the eye, for enhancing regeneration of the endothelium in human eyes and for use as protective factor and growth enhancer before and during surgery of the eye; for improving donor corneal endothelium preservation prior to keratoplasty and for use in cases of injury and disease.

0/0

Dwg.0/0

L16 ANSWER 11 OF 24 MEDLINE

| | |
|---|---|
| ACCESSION NUMBER: | 93330508 MEDLINE |
| DOCUMENT NUMBER: | 93330508 PubMed ID: 8336903 |
| TITLE: | Lipid peroxidation in the iris and its protection by means of viscoelastic substances (sodium hyaluronate and hydroxypropylmethylcellulose). |
| AUTHOR: | Artola A; Alio J L; Bellot J L; Ruiz J M |
| CORPORATE SOURCE: | Division of Ophthalmology, University of Alicante, Spain. |
| SOURCE: | OPHTHALMIC RESEARCH, (1993) 25 (3) 172-6. Journal code: OIE; 0267442. ISSN: 0030-3747. |
| PUB. COUNTRY: | Switzerland Journal; Article; (JOURNAL ARTICLE) |
| LANGUAGE: | English |
| FILE SEGMENT: | Priority Journals |
| ENTRY MONTH: | 199308 |
| ENTRY DATE: | Entered STN: 19930903 Last Updated on STN: 19930903 |

Entered Medline: 19930823

AB Free radicals, especially the hydroxyl radical (OH.), are known to be toxic for several ocular structures including the cornea, lens, iris and retina through the initiation of lipid peroxidation of **cell** membranes. The oxidative damage to the iris epithelial-**cell** membranes, induced by the injection of hydrogen peroxide (H2O2) at different concentrations into the anterior chamber of the rabbit eye, was studied by means of the **measurement** of lipid peroxidation products. Thiobarbituric acid reactive (TBAR) products were significantly increased compared with normal control iris after the intracameral injection of H2O2 at concentrations of 0.1 ($p < 0.02$), 10 and 100 mM ($p < 0.001$). Viscoelastic substances, widely used in anterior ocular surgery, sodium hyaluronate (Healon) and hydroxypropylmethylcellulose, show a protective effect against rabbit iris lipid peroxidation. A statistically significant ($p < 0.001$) inhibition of the release of TBAR products occurred in both experimental groups that received an injection of these substances prior to a H2O2 injection. This is the first report of lipid peroxidation of the iris and the 'antioxidant'-protective effect of viscoelastic substances. This new technical approach could be used as a test of efficacy of the protective effect of viscoelastic substances.

L16 ANSWER 12 OF 24 MEDLINE
ACCESSION NUMBER: 92028484 MEDLINE
DOCUMENT NUMBER: 92028484 PubMed ID: 1929936
TITLE: Endothelial protection and viscoelastic retention during phacoemulsification and intraocular lens implantation.
AUTHOR: Glasser D B; Osborn D C; Nordeen J F; Min Y I
CORPORATE SOURCE: Department of Ophthalmology, University of Maryland Medical School, Baltimore.
SOURCE: ARCHIVES OF OPHTHALMOLOGY, (1991 Oct) 109 (10) 1438-40.
Journal code: 830; 7706534. ISSN: 0003-9950.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199111
ENTRY DATE: Entered STN: 19920124
Last Updated on STN: 19920124
Entered Medline: 19911112

AB Endothelial protection (**measured** by vital-dye staining and computerized planimetry) and viscoelastic retention during phacoemulsification with and without traumatic lens implantation were assessed in a rabbit model comparing four viscoelastics (Healon, Amvisc Plus, Occucoat, and Viscoat). No significant differences in **cell** damage were noted between unoperated on controls and groups that underwent atraumatic phacoemulsification with viscoelastic. **Cell** damage after traumatic lens insertion was reduced significantly by all four viscoelastics. **Cell** damage with and without traumatic lens implantation was significantly lower when viscoelastics were retained. Viscoat and Occucoat were significantly more likely to be retained than Healon.

L16 ANSWER 13 OF 24 MEDLINE
ACCESSION NUMBER: 92045473 MEDLINE

DOCUMENT NUMBER: 92045473 PubMed ID: 1941596
TITLE: Protective effects of Healon and Occucoat against air bubble endothelial damage during ultrasonic agitation of the anterior chamber.
AUTHOR: Monson M C; Tamura M; Mamalis N; Olson R J; Olson R J
CORPORATE SOURCE: Intermountain Ocular Research Center, University of Utah School of Medicine, Salt Lake City.
SOURCE: JOURNAL OF CATARACT AND REFRACTIVE SURGERY, (1991 Sep) 17 (5) 613-6.
Journal code: JPB; 8604171. ISSN: 0886-3350.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199112
ENTRY DATE: Entered STN: 19920124
Last Updated on STN: 19920124
Entered Medline: 19911209

AB An important aspect of any new viscoelastic substance is the corneal endothelial protection. We compared the protective effects of sodium hyaluronate (Healon) and hydroxypropylmethylcellulose (Occucoat) by introducing a controlled volume of air bubbles into the anterior chamber of human eye bank eyes during ultrasonic agitation of the anterior chamber. Eight eyes received Healon and 11 eyes received Occucoat. Damage to endothelial **cells** in the central cornea was **quantified** by vital staining. Endothelial damage averaged 4.5% in eyes in which no viscoelastic was used (positive control); damage was 0.4% in eyes in which a viscoelastic was injected but no air bubbles were introduced (negative control). We found that endothelial damage averaged 4.25% in specimens that received air plus Healon and 1.4% in specimens that received air plus Occucoat. Occucoat appeared to have somewhat better protective effects than Healon against air bubble damage to the corneal endothelium during ultrasonic agitation of the anterior chamber.

L16 ANSWER 14 OF 24 MEDLINE
ACCESSION NUMBER: 91171149 MEDLINE
DOCUMENT NUMBER: 91171149 PubMed ID: 2005554
TITLE: Prospective comparison of the effects of Occucoat, Viscoat, and Healon on intraocular pressure and endothelial **cell** loss.
AUTHOR: Lane S S; Naylor D W; Kullerstrand L J; Knauth K; Lindstrom R L
CORPORATE SOURCE: Ophthalmology Section, Veteran's Affairs Medical Center, Minneapolis, Minnesota 55417.
SOURCE: JOURNAL OF CATARACT AND REFRACTIVE SURGERY, (1991 Jan) 17 (1) 21-6.
Journal code: JPB; 8604171. ISSN: 0886-3350.
PUB. COUNTRY: United States
(CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199104
ENTRY DATE: Entered STN: 19910512
Last Updated on STN: 19950206
Entered Medline: 19910424

AB We compared the effect of Occucoat (2% hydroxypropylmethyl-cellulose), Viscoat (sodium hyaluronate-**chondroitin sulfate**), and Healon (sodium hyaluronate) on postoperative intraocular pressure (IOP) and endothelial **cell** damage. One hundred fourteen patients having planned extracapsular cataract extraction with posterior chamber lens implantation using a viscomaterial were prospectively randomized into one of five groups. Group I received Occucoat which was removed from the anterior chamber at the conclusion of surgery. Group II received Occucoat which was not removed (retained). Group III received Viscoat which was removed, Group IV received Viscoat which was retained, and Group V received Healon which was removed. No prophylactic ocular hypotensive medications were given. Intraocular pressure was **measured** at four hours, 24 hours, one week, one month, three months, and one year postoperatively. Compared to preoperative IOP, all groups had a significant IOP increase at four hours. All but the Viscoat removed group (Group III) showed a statistically significant increase at 24 hours postoperatively (P less than .05). No group had a significant increase at one week or later. Specular microscopy showed no significant difference in **cell** loss between any of the groups at three months or within each group when compared to preoperative **cell** counts (P greater than .1).

L16 ANSWER 15 OF 24 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 91196613 MEDLINE
DOCUMENT NUMBER: 91196613 PubMed ID: 2014762
TITLE: Macrophage-like **cells** originate from neuroepithelium in culture: characterization and properties of the macrophage-like **cells**.
AUTHOR: Hao C; Richardson A; Fedoroff S
CORPORATE SOURCE: Department of Anatomy, University of Saskatchewan, Saskatoon, Canada.
SOURCE: INTERNATIONAL JOURNAL OF DEVELOPMENTAL NEUROSCIENCE, (1991) 9 (1) 1-14.
Journal code: 126; 8401784. ISSN: 0736-5748.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199105
ENTRY DATE: Entered STN: 19910602
Last Updated on STN: 19910602
Entered Medline: 19910513

AB Cultures of astroglia from C3H/HeJ mice, which are resistant to bacterial **cell** wall **polysaccharide** (LPS), initiated from embryos of Theiler stage 14 (9 days of gestation) up to Theiler stage 25 (17 days of gestation) as well as newborn animals, when subjected to nutritional deprivation, i.e. non-feeding of cultures, form large numbers of macrophage-like **cells**. These **cells** express Mac-1, Mac-3, F4/80 and Fc antigens. The **cells** are negative for GFAP, positive for vimentin, express Ia antigen and take up DiL-Ac-LDL. They are positive to non-specific esterase, secrete lysozyme and are phagocytic. Their morphology and ultrastructure closely resemble those of macrophages. Cultures initiated from neuroepithelium of Theiler stage 13 (8.5 days of gestation), before vascularization, when subjected to nutritional deprivation, also produce macrophage-like **cells** . Using spleen colony assay and **methyl cellulose**

cultures, we were unable to **detect** the presence of hemopoietic (macrophage) precursor **cells** in astroglia cultures. This supports the hypothesis that the macrophage-like **cells** are of neuroectodermal origin and probably correspond to resident microglia of the CNS. Using nutritionally deprived astroglia cultures, a procedure was developed for isolation of macrophage-like **cells** and production of highly enriched macrophage-like (microglia) cultures.

L16 ANSWER 16 OF 24 MEDLINE
ACCESSION NUMBER: 91037182 MEDLINE
DOCUMENT NUMBER: 91037182 PubMed ID: 2230247
TITLE: **Motility** of Lyme disease spirochetes in fluids as viscous as the extracellular matrix.
AUTHOR: Kimsey R B; Spielman A
CORPORATE SOURCE: Department of Tropical Public Health, Harvard School of Public Health, Boston, Massachusetts.
CONTRACT NUMBER: AI-19693 (NIAID)
SOURCE: JOURNAL OF INFECTIOUS DISEASES, (1990 Nov) 162 (5) 1205-8.
Journal code: IH3; 0413675. ISSN: 0022-1899.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199012
ENTRY DATE: Entered STN: 19910208
Last Updated on STN: 19910208
Entered Medline: 19901204

AB When properties of extracellular fluids that might regulate the ability of the Lyme disease spirochete to locomote were investigated, the rate of progression correlated with viscoelasticity. Such spirochetes flexed and rotated but did not progress in relatively nonviscous fluids and migrated increasingly rapidly as the viscous characteristics of the medium increased. The viscoelastic properties of various kinds of **hyaluronic** acid resembled those of a methylcellulose standard. The maximum velocity that spirochetes achieved in such solutions related directly to viscoelasticity rather than to chemical composition. Spirochetes remained **motile** during 3 h of observation despite 100-fold dilution of the standard nutrient medium. The immobility of Lyme disease spirochetes in media less viscous in character than fixed tissue suggests dissemination via the intercellular ground substance of skin.

L16 ANSWER 17 OF 24 EMBASE 
ACCESSION NUMBER: 90330061 EMBASE
DOCUMENT NUMBER: 1990330061
TITLE: Examination of corneal proteoglycans and glycosaminoglycans by rotary shadowing and electron microscopy.
AUTHOR: Scott J.E.; Cummings C.; Greiling H.; Stuhlsatz H.W.; Gregory J.D.; Damle S.P.
CORPORATE SOURCE: Department of Medical Biophysics, University of Manchester, Manchester, United Kingdom
SOURCE: International Journal of Biological Macromolecules, (1990) 12/3 (180-184).
ISSN: 0141-8130 CODEN: IJBMDR

COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 012 Ophthalmology
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Proteoglycans (PGs) from cornea and their relevant glycosaminoglycan (GAG) chains, dermatan sulphate (DS) and keratan sulphate (KS), were examined by electron microscopy following rotary shadowing, and compared with hyaluronan (HA), **chondroitin sulphate** (CS), alginate, heparin, heparan sulphate (HS) and **methyl cellulose**. Corneal DS PG had the tadpole shape previously seen in scleral DS FG, and the images from corneal KS PG could be interpreted similarly, although the GAG (KS) chains were very much fainter than those of DS PG GAG. Isolated GAG (KS, DS, CS, HA, etc.) examined in the same way showed images that decreased very significantly in clarity and contrast, in the sequence HA>DS>CS>KS. The presence of secondary and tertiary structures in the GAGs may be at least partly responsible for these variations. HA appeared to be double stranded, and DS frequently self-aggregated. KS and HS showed tendencies to coil into globular shapes. It is concluded that it is unsafe to assume the absence of GAGs, based on these techniques, and **quantitative measurements** of length may be subject to error. The results on corneal DS PG confirm and extend the hypothesis that PGs specifically associated with collagen fibrils are tadpole shaped.

L16 ANSWER 18 OF 24 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1990:108556 BIOSIS
DOCUMENT NUMBER: BA89:58047
TITLE: POTASSIUM SORBATE PERMEABILITY OF METHYLCELLULOSE AND HYDROXYPROPYL METHYLCELLULOSE MULTI-LAYER FILMS.
AUTHOR(S): VOJDANI F; TORRES J A
CORPORATE SOURCE: DEP. FOOD SCI. TECHNOL., OREGON STATE UNIV., CORVALLIS, OREG. 97331.
SOURCE: J FOOD PROCESS PRESERV, (1989) 13 (6), 417-430. CODEN: JFPPDL. ISSN: 0145-8892.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Spoilage by microorganisms growing on food surfaces is the shelf-life limiting factor for many food products. Previous publications have shown that this shelf-life limitation can be overcome by edible coatings lowering the diffusion rate into the food of antimicrobial agents applied on food surfaces. A permeability **cell** has been used to evaluate the potassium sorbate barrier properties of **polysaccharide** based films. In this paper we examine the effect of film formation technique and film formulation on the permeability rate of methyl- and hydroxypropyl **methyl cellulose** based films. Permeability constant **determinations** ranging from 10-9 to 10-11 (mg/s cm2)(cm)/(mg/cm3) indicate that surface resistance to microbial growth could be enhanced significantly. Scanning electron microscopy examinations showed that films were of uniform thickness. Morphological differences between films were consistent with permeability **measurements**.

L16 ANSWER 19 OF 24 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1988-130697 [19] WPIDS

DOC. NO. NON-CPI: N1988-099309
DOC. NO. CPI: C1988-058703
TITLE: Air permeable, water absorbing insulative cloth pile material - comprises cloth with support cloth of porous honeycombed polymeric cloth.
DERWENT CLASS: A83 A94 F07 P21
PATENT ASSIGNEE(S): (TOPO-N) TOYO POLYMER KK
COUNTRY COUNT: 1
PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|---|---|---|---|---|---|
| JP 63075102 | A | 19880405 | (198819)* | | 6 |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---|---|---|---|
| JP 63075102 | A | JP 1986-215405 | 19860912 |

PRIORITY APPLN. INFO: JP 1986-215405 19860912
AN 1988-130697 [19] WPIDS
AB JP 63075102 A UPAB: 19930923
Material comprises ordinal cloth material and supporting cloth made of polymeric porous material having honeycomb structure contg. **three dimensional** continuous fine **cells**.
Both materials being piled and fixed.
The polymer substance includes polyurethane, polyvinyl chloride, polystyrene, polyethylene, polypropylene, acryl resin, polyamide, etc. The polymer and agent for forming pores such as polyvinyl alcohol, polyethylene oxide, **methyl cellulose**, **polysaccharide** polymer, etc. dissolved in a solvent are introduced into a mould, then gelled product produced is recovered under a solvent which does not dissolve the polymer, and the agent for forming pore is removed with the solvent, whereby the porous material is obtd.
ADVANTAGE - The material for cloth has improved air-permeability, water absorbability, water-holding ability, heat-holding ability, etc. and thus can be used for prepn. of underwear, supporter for sports, etc.
0/2

L16 ANSWER 20 OF 24 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1987-073819 [11] WPIDS
DOC. NO. CPI: C1987-030726
TITLE: Viscoelastic soln. contg. cellulose gum and **chondroitin sulphate** - in buffered base soln., used for protecting **cells** against trauma, for lubrication and sepn. of tissue surfaces, etc..
DERWENT CLASS: A96
INVENTOR(S): SKELNIK, D L; LINDSTROM, R L
PATENT ASSIGNEE(S): (LIND-I) LINDSTROM R L; (SKEL-I) SKELNIK D L
COUNTRY COUNT: 4
PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| EP 213734 | A | 19870311 (198711)* | EN | 2 | |
| R: DE FR GB | | | | | |
| US 4713375 | A | 19871215 (198806) | | | |
| EP 213734 | B1 | 19940202 (199405) | EN. | 3 | |
| R: DE FR GB | | | | | |
| DE 3689600 | G | 19940317 (199412) | | | |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---|---|---|---|
| EP 213734 | A | EP 1986-305773 | 19860728 |
| US 4713375 | A | US 1985-761406 | 19850801 |
| EP 213734 | B1 | EP 1986-305773 | 19860728 |
| DE 3689600 | G | DE 1986-3689600 | 19860728 |
| | | EP 1986-305773 | 19860728 |

FILING DETAILS:

| PATENT NO | KIND | | PATENT NO |
|---|---|---|---|
| DE 3689600 | G | Based on | EP 213734 |

PRIORITY APPLN. INFO: US 1985-761406 19850801

AN 1987-073819 [11] WPIDS

AB EP 213734 A UPAB: 19930922

Soln. comprises a buffered soln., cellulose gum (I) and **chondroitin sulphate** (II), whereby the viscoelastic soln. is buffer pH adjusted.

Pref. buffered soln. is buffered balanced salt soln., HEPES buffered min. essential medium, PBS or GIBCO TC 199 (RTM). (I) is pref. 1-8, esp. 4%, cellulose gum opt. substd. by carboxypropyl **methyl cellulose** or hydroxypropyl **methyl cellulose**.

USE/ADVANTAGE - To protect **cells** from mechanical trauma, to maintain or create tissue spaces, to ensure sepn. and lubrication of tissue surfaces, to permit manipulation of tissues without mechanical damage and to prevent and control **movement** and activities of certain **cells**. The soln. has good coating properties and uses biocompatible materials to maintain lubricity and protection.

0/0

ABEQ US 4713375 A UPAB: 19930922

Soln. comprises a buffered soln. cellulose gum (I) and **chondroitin sulphate** (II), whereby the viscoelastic soln. is buffer pH adjusted. Pref. buffered soln. is buffered balanced salt soln., HEPES buffered min. essential medium, PBS or GIBCO TC 199 (RTM). (I) is pref. 1-8, esp. 4%, cellulose gum lopt. substd. by carboxypropyl **methyl cellulose** or hydroxypropyl **methyl cellulose**.

USE/ADVANTAGE - To protect **cells** from mechanical trauma, to maintain or creat tissue spaces, to ensure sepn. and lubrication of tissue surfaces, to permit manipulation of tissues without mechanical damage and to prevent and control **movement** and activities of certain **cells**. The soln. has good coating properties and uses biocompatible materials to maintain lubricity and protection.

ABEQ EP 213734 B UPAB: 19940315
Soln. comprises a buffered soln., cellulose gum (I) and **chondroitin sulphate** (II), whereby the viscoelastic soln. is buffer pH adjusted.

Pref. buffered soln. is buffered balanced salt soln., HEPES buffered min. essential medium, PBS or GIBCO TC 199 (RTM). (I) is pref. 1-8, esp. 4%, cellulose gum opt. substd. by carboxypropyl **methyl cellulose** or hydroxypropyl **methyl cellulose**.

USE/ADVANTAGE - To protect **cells** from mechanical trauma, to maintain or create tissue spaces, to ensure sepn. and lubrication of tissue surfaces, to permit manipulation of tissues without mechanical damage and to prevent and control **movement** and activities of certain **cells**. The soln. has good coating properties and uses biocompatible materials to maintain lubricity and protection.
Dwg.0/0

L16 ANSWER 21 OF 24 MEDLINE
ACCESSION NUMBER: 88167283 MEDLINE
DOCUMENT NUMBER: 88167283 PubMed ID: 3327710
TITLE: Air, methylcellulose, sodium hyaluronate and the corneal endothelium. Endothelial protective agents.
AUTHOR: Kerr Muir M G; Sherrard E S; Andrews V; Steele A D
CORPORATE SOURCE: Department of Clinical Ophthalmology, Institute of Ophthalmology, London.
SOURCE: Eye, (1987) 1 ( Pt 4) 480-6.
Journal code: EYE; 8703986. ISSN: 0950-222X.
PUB. COUNTRY: ENGLAND: United Kingdom
(CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198805
ENTRY DATE: Entered STN: 19900308
Last Updated on STN: 19950206
Entered Medline: 19880512

AB In a randomised trial the endothelial protective agent used during extracapsular cataract extraction and intraocular lens insertion was air in 19 eyes (group 1), methylcellulose in 25 eyes (group 2) and sodium hyaluronate in 22 (group 3). The **cell** population densities of each eye were estimated immediately before and three months after the operations to **determine** the degree of **cell** loss. Eyes showing mechanical (touch) damage on the second postoperative day were eliminated. The numbers of eyes in each group which showed a statistically significant **cell** loss were compared, and the mean **cell** losses in each group were tested for significant differences. It appears that air actually damages the endothelium while methylcellulose and Na-hyaluronate are not harmful, and afford a high, essentially equal degree of endothelial protection.

L16 ANSWER 22 OF 24 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 2
ACCESSION NUMBER: 1987:89124 BIOSIS
DOCUMENT NUMBER: BA83:47702
TITLE: A COMPARISON OF THE EFFICACY AND TOXICITY OF AND INTRAOCULAR PRESSURE RESPONSE TO VISCOUS SOLUTIONS IN

THE ANTERIOR CHAMBER.
AUTHOR(S): GLASSER D B; MATSUDA M; EDELHAUSER H F
CORPORATE SOURCE: DEP. PHYSIOL., MED. COLL. WISCONSIN, 8701 WATERTOWN PLANK RD., MILWAUKEE, WIS. 53226.
SOURCE: ARCH OPHTHALMOL, (1986) 104 (12), 1819-1824.
CODEN: AROPAW. ISSN: 0003-9950.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB An intraocular-lens abrasion test, vital dye staining, and scanning electron microscopy were used for an in vitro comparison of endothelial protection offered by four viscous solutions of 1% sodium hyaluronate (Healon), 3% sodium hyaluronate (AmVisc), 4% **chondroitin sulfate** (Viscoat), and 2% methylcellulose. Wide-field specular microscopy with analysis of endothelial **cell** density and morphologic evaluation, pachymetry, and intraocular pressure **measurements** were also used to study the toxicity of the viscous solutions in an in vivo cat model with and without anterior chamber washout. All four solutions provided complete endothelial protection from mechanical trauma. Endothelial **cell** density and morphologic nature were unaffected during the in vivo toxicity study. A mild increase in intraocular inflammation occurred at one and two days after intraocular injection with all four viscous solutions. Intraocular pressure elevations peaked within four hours after instillation of the viscous solutions and were significantly reduced by anterior chamber washout.

L16 ANSWER 23 OF 24 MEDLINE
ACCESSION NUMBER: 85264761 MEDLINE
DOCUMENT NUMBER: 85264761 PubMed ID: 3894669
TITLE: Effects of tampon materials on the in-vitro physiology of a toxic shock syndrome strain of Staphylococcus aureus.
AUTHOR: Ingham E; Eady E A; Holland K T; Gowland G
SOURCE: JOURNAL OF MEDICAL MICROBIOLOGY, (1985 Aug) 20 (1) 87-95.
Journal code: J2N; 0224131. ISSN: 0022-2615.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198509
ENTRY DATE: Entered STN: 19900320
Last Updated on STN: 20000303
Entered Medline: 19850909

AB Seven materials used in the manufacture of tampons-four rayon, one modified rayon, one cotton and one carboxy-**methyl cellulose** (a modified cotton)-were compared for their effects in vitro on the physiology of a strain of Staphylococcus aureus isolated from a patient with Toxic Shock Syndrome. Experiments were performed in broth culture and, with the exception of two rayon samples, all of the materials tested reduced growth rate and **cell** yield compared with control values. Exocellular acid phosphatase, lipase, proteinase, hyaluronate lyase and haemolysin in culture filtrates were **measured** and the lethality of filtrates was **determined** in mice. The tampon materials had different effects on the levels of exocellular products. Cotton and carboxy-**methyl cellulose**

cotton materials reduced the levels of all of the activities tested. The activities of the other enzymes were reduced or increased, depending on which material was present. All materials reduced both haemolytic activity and lethality of the culture filtrates. The in-vitro data suggest an extremely complex interaction between tampon materials and S. aureus.

L16 ANSWER 24 OF 24 MEDLINE
ACCESSION NUMBER: 73189006 MEDLINE
DOCUMENT NUMBER: 73189006 PubMed ID: 4196673
TITLE: Deep freezing of boar semen. I. Effects of diluent composition, protective agents, and method of thawing on survival of spermatozoa.
AUTHOR: Salamon S; Wilmut I; Polge C
SOURCE: AUSTRALIAN JOURNAL OF BIOLOGICAL SCIENCES, (1973 Feb) 26 (1) 219-30.
Journal code: 9EO; 0370613. ISSN: 0004-9417.
PUB. COUNTRY: Australia
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197308
ENTRY DATE: Entered STN: 19900310
Last Updated on STN: 19900310
Entered Medline: 19730806

FILE 'HOME' ENTERED AT 11:27:14 ON 24 OCT 2001